GenCore version 4.5

OM protein - protein search, using sw model

Run on: March 1, 2001, 15:43:15 ; Search time 140.11 Seconds
(without alignments)
85.357 Million cell updates/sec

Title: US-09-331-631A-1
Perfect score: 3542
Sequence: 1 MAINTSNLCSLLFLLSLFLL.....SPRSTKQQQPLVSILDFVGF 666

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 174772 seqs, 17957048 residues

Total number of hits satisfying chosen parameters: 174772

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/2/iaa/6_COMB.pep:*
4: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1127	31.8	566	1	US-07-955-905A-2	Sequence 2, Appli
2	1127	31.8	566	1	US-07-955-905A-22	Sequence 22, Appl
3	1075	30.4	587	1	US-07-955-905A-23	Sequence 23, Appl
4	838.5	23.7	605	1	US-07-955-905A-24	Sequence 24, Appl
5	821.5	23.2	571	1	US-07-955-905A-25	Sequence 25, Appl
6	699.5	19.7	410	1	US-07-955-905A-26	Sequence 26, Appl
7	542	15.3	421	1	US-07-955-905A-27	Sequence 27, Appl
8	216.5	6.1	1898	1	US-08-056-200-94	Sequence 94, Appl
9	216.5	6.1	1898	2	US-08-800-644-94	Sequence 94, Appl
10	211.5	6.0	1162	2	US-08-728-323A-2	Sequence 2, Appli
11	144	4.1	788	2	US-08-918-914-4	Sequence 4, Appli
12	143	4.0	303	1	US-08-109-391A-2	Sequence 2, Appli
13	143	4.0	303	1	US-08-459-019A-2	Sequence 2, Appli
14	143	4.0	303	2	US-08-460-428A-2	Sequence 2, Appli
15	143	4.0	303	3	US-08-458-860A-2	Sequence 2, Appli
16	136.5	3.9	614	4	PCT-US95-03236-21	Sequence 21, Appl
17	135	3.8	186	2	US-08-557-309B-43	Sequence 43, Appl
18	135	3.8	186	3	US-08-834-306-43	Sequence 43, Appl
19	134	3.8	1354	3	US-08-685-871-2	Sequence 2, Appli
20	132.5	3.7	432	2	US-08-933-750C-47	Sequence 47, Appl
21	132.5	3.7	432	3	US-09-234-613-47	Sequence 47, Appl
22	130.5	3.7	558	1	US-08-285-440-6	Sequence 6, Appli
23	130.5	3.7	558	1	US-08-630-349-6	Sequence 6, Appli
24	129	3.6	1805	1	US-07-853-913-2	Sequence 2, Appli
25	129	3.6	2101	1	US-08-466-390-4	Sequence 4, Appli
26	129	3.6	2101	1	US-08-470-950-4	Sequence 4, Appli
27	129	3.6	2101	1	US-08-467-781-4	Sequence 4, Appli
28	129	3.6	2101	1	US-08-195-487-4	Sequence 4, Appli
29	129	3.6	2101	2	US-08-483-924-4	Sequence 4, Appli
30	129	3.6	2101	4	PCT-US93-06160-4	Sequence 4, Appli
31	128	3.6	900	2	US-08-630-822A-62	Sequence 62, Appl
32	128	3.6	900	2	US-09-005-069-62	Sequence 62, Appl
33	127.5	3.6	514	2	US-08-960-022-14	Sequence 14, Appl
34	127	3.6	542	1	US-08-701-380-2	Sequence 2, Appli
35	127	3.6	542	3	US-09-032-365A-13	Sequence 13, Appl
36	127	3.6	1001	3	US-09-060-410-2	Sequence 2, Appli
37	126	3.6	905	2	US-08-574-959A-9	Sequence 9, Appli
38	126	3.6	1135	2	US-08-574-959A-7	Sequence 7, Appli
39	125	3.5	683	5	5210183-3	Patent No. 5210183
40	124	3.5	844	1	US-07-646-537B-2	Sequence 2, Appli
41	123	3.5	288	2	US-08-961-858-6	Sequence 6, Appli
42	123	3.5	288	3	US-09-089-593-6	Sequence 6, Appli
43	123	3.5	288	3	US-08-950-925-4	Sequence 4, Appli
44	121.5	3.4	290	2	US-08-903-801-1	Sequence 1, Appli
45	118.5	3.3	754	3	US-09-214-564A-2	Sequence 2, Appli

ALIGNMENTS

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RESULT   1
US-07-955-905A-2
; Sequence 2, Application US/07955905A
; Patent No. 5770433
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECOMBINANT 47 AND 31 kD COCOA PROTEINS AND
;    TITLE OF INVENTION:  PRECURSOR
;    NUMBER OF SEQUENCES:  28
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/955,905A
;      FILING DATE:  21-JAN-1993
;      CLASSIFICATION:  435
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  566 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-07-955-905A-2


  Query Match            31.8%;  Score 1127;  DB 1;  Length 566;
  Best Local Similarity  40.4%;  Pred. No. 7.6e-95;
  Matches  233;  Conservative  109;  Mismatches  177;  Indels   58;  Gaps   13;

Qy    109 ICEEEEEYNR---QRDPQQQYEQCQKHCQRRETEPRHMQTCQQRCERRYEKEKRKQQKRY 165
          :|     | |   :|||:|||||||: |:   || |  : |:||||           |
Db     22 LCSGVSAYGRKQYERDPRQQYEQCQRRCESEATEEREQEQCEQRCER----------EY 70

Qy    166 EEQQREDEEKYEERMKEEDNKRDPQQREYEDCRRRCEQQE--PRQQHQCQLRCREQQRQH 223
          :|||| ||:               ||:|: |: ||::|:   |:| ||| :| || ::
Db     71 KEQQRQQEEEL-------------QRQYQQCQGRCQEQQQGQREQQQCQRKCWEQYKEQ 116

Qy    224 GRGGDMMNPQRGGSGRYEEGEEEQSDNPYYFDE-RSLSTRFRTEEGHISVLENFYGRSKL 282
           | |:  |       | || | :| :||||| : ||  |||| |||:  :|: |   |
Db    117 ER-GEHENYHNHKKNRSEEEEGQQRNNPYYFPKRRSFQTRFRDEEGNFKILQRFAENSPP 175

Qy    283 LRALKNYRLVLLEANPNAFVLPTHLDADAILLVIGGRGALKMIHHDNRESYNLECGDVIR 342
          |: : :||| : ||||| |:|| | ||:||  |  |:| :  : |:|:||||:: | |:
Db    176 LKGINDYRLAMFEANPNTFILPHHCDAEAIYFVTNGKGTITFVTHENKESYNVQRGTVVS 235

Qy    343 IPAGTTFYLINRDNNERLHIAKFLQTISTPGQYKEFFPAGGQNPEPYLSTFSKEILEAAL 402
          :|||:| |::::|| |:| ||     :::||:|: ||||   || |   || |:||
Db    236 VPAGSTVYVVSQDNQEKLTIAVLALPVNSPGKYELFFPAGNNKPESYYGAFSYEVLETVF 295
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Qy    403 NTQTEKLRGVFGQQR--------EGVIIRASQEQIRELTRDDSESRHWHIRRGGESSRGP 454
          ||| |||  :  :||         :|:  :|  |||| :::  :  ||    ||||  |
Db    296 NTQREKLEEILEEQRGQKRQQGQQGMFRKAKPEQIRAISQQATSPRH----RGGE--RLA 349

Qy    455 YNLFNKRPLYSNKYGQAYEVKPEDYRQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVV 514
          || :: |:|||: |: :|  |||: | |:||::|    : ||::  | :|:::| || |
Db    350 INLLSQSPVYSNQNGRFFEACPEDFSQFQNMDVAVSAFKLNQGAIFVPHYNSKATFVVFV 409

Qy    515 ASGEADVEMACPHLSGRHGGRGGGK--RHEEEEDV------HYEQVRARLSKREAIVVLA 566
            |    :|||||||  :  |   |:  | |:||:        ::||:| ||  :  |  |
Db    410 TDGYGYAQMACPHLSRQSQGSQSGRQDRREQEEESEEETFGEFQQVKAPLSPGDVFVAPA 469

Qy    567 GHPVVFVSSGNENLLLFAFGINAQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVEE 626
          || | | :| :: |   |||:|||||   ||||: :|:::|:: :| ||:|  | | |:
Db    470 GHAVTFFASKDQPLNAVAFGLNAQNNQRIFLAGK-KNLVRQMDSEAKELSFGVPSKLVDN 528

Qy    627 SFNSQDQSIFFPGPRQHQQQSPRSTKQQQPLVSILDF 663
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Db    529 IFNNPDESYFMSFSQQRQR---RDERRGNPLASILDF 562


RESULT   2
US-07-955-905A-22
; Sequence 22, Application US/07955905A
; Patent No. 5770433
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECOMBINANT 47 AND 31 kD COCOA PROTEINS AND
;    TITLE OF INVENTION:  PRECURSOR
;    NUMBER OF SEQUENCES:  28
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/955,905A
;      FILING DATE:  21-JAN-1993
;      CLASSIFICATION:  435
;  INFORMATION FOR SEQ ID NO:  22:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  566 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    ORIGINAL SOURCE:
;      ORGANISM:  Theobroma cacao
;    FEATURE:
;      NAME/KEY:  Protein
;      LOCATION:  1..566
;      OTHER INFORMATION:  /note= "67 kD Precursor Protein"
US-07-955-905A-22


  Query Match             31.8%;  Score 1127;  DB 1;  Length 566;
  Best Local Similarity   40.4%;  Pred. No. 7.6e-95;
  Matches  233;  Conservative  109;  Mismatches  177;  Indels   58;  Gaps   13;

Qy    109 ICEEEEEYNR---QRDPQQQYEQCQKHCQRRETEPRHMQTCQQRCERRYEKEKRKQQKRY 165
          :|     | |   :|||:|||||||: |:   || |  : |:|||||           |
Db     22 LCSGVSAYGRKQYERDPRQQYEQCQRRCESEATEEREQEQCEQRCER----------EY 70

Qy    166 EEQQREDEEKYEERMKEEDNKRDPQQREYEDCRRRCEQQE--PRQQHQCQLRCREQQRQH 223
          :|||: ||:              ||:|: |: ||::|:   |:| ||| :| || ::
Db     71 KEQQRQQEEEL-------------QRQYQQCQGRCQEQQQGQREQQQCQRKCWEQYKEQ 116

Qy    224 GRGGDMMNPQRGGSGRYEEGEEEQSDNPYYYFDE-RSLSTRFRTEEGHISVLENFYGRSKL 282
          | |:  |       | || | :| :||||| : ||  |||| |||:  :|: |   |
Db    117 ER-GEHENYHNHKKNRSEEEEGQQRNNPYYFPKRRSFQTRFRDEEGNFKILQRFAENSPP 175

Qy    283 LRALKNYRLVLLEANPNAFVLPTHLDADAILLVIGGRGALKMIHHDNRESYNLECGDVIR 342
          |: : :||| : ||||| |:|| | ||:|| |  |:| :  : |:|:||||:: | |:
Db    176 LKGINDYRLAMFEANPNTFILPHHCDAEAIYFVTNGKGTITFVTHENKESYNVQRGTVVS 235
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Qy    343 IPAGTTFYLINRDNNERLHIAKFLQTISTPGQYKEFFPAGGQNPEPYLSTFSKEILEAAL 402
          :|||:| |::::|| |:| ||     :::||:|: |||||   || |   || |:||
Db    236 VPAGSTVYVVSQDNQEKLTIAVLALPVNSPGKYELFFPAGNNKPESYYGAFSYEVLETVF 295

Qy    403 NTQTEKLRGVFGQQR--------EGVIIRASQEQIRELTRDDSESRHWHIRRGGESSRGP 454
          ||| |||  :  :||         :|:  :|  |||| :::  :  ||    ||||  |
Db    296 NTQREKLEEILEEQRGQKRQQGQQGMFRKAKPEQIRAISQQATSPRH----RGGE--RLA 349

Qy    455 YNLFNKRPLYSNKYGQAYEVKPEDYRQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVV 514
          || :: |:|||: |: :|  |||: | |:||::|    : ||::  | :|:::| || |
Db    350 INLLSQSPVYSNQNGRFFEACPEDFSQFQNMDVAVSAFKLNQGAIFVPHYNSKATFVVFV 409

Qy    515 ASGEADVEMACPHLSGRHGGRGGGK--RHEEEEDV------HYEQVRARLSKREAIVVLA 566
            |    :|||||||  :  |   |:  | |:||:        ::||:| ||  :  |  |
Db    410 TDGYGYAQMACPHLSRQSQGSQSGRQDRREQEEESEEETFGEFQQVKAPLSPGDVFVAPA 469

Qy    567 GHPVVFVSSGNENLLLFAFGINAQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVEE 626
          || | | :| :: |   |||:|||||   ||||: :|:::|:: :| ||:|  | | |:
Db    470 GHAVTFFASKDQPLNAVAFGLNAQNNQRIFLAGK-KNLVRQMDSEAKELSFGVPSKLVDN 528

Qy    627 SFNSQDQSIFFPGPRQHQQQSPRSTKQQQPLVSILDF 663
            ||: |:| |    :| |:   |  ::  || |||||
Db    529 IFNNPDESYFMSFSQQRQR---RDERRGNPLASILDF 562


RESULT   3
US-07-955-905A-23
; Sequence 23, Application US/07955905A
; Patent No. 5770433
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECOMBINANT 47 AND 31 kD COCOA PROTEINS AND
;    TITLE OF INVENTION:  PRECURSOR
;    NUMBER OF SEQUENCES:  28
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/955,905A
;      FILING DATE:  21-JAN-1993
;      CLASSIFICATION:  435
;  INFORMATION FOR SEQ ID NO:  23:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  587 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    ORIGINAL SOURCE:
;      ORGANISM:  Gossypium hirsutum
;    FEATURE:
;      NAME/KEY:  Protein
;      LOCATION:  1..587
;      OTHER INFORMATION:  /note= "Vicilin from G. hirsutum"
US-07-955-905A-23


  Query Match             30.4%;  Score 1075;  DB 1;  Length 587;
  Best Local Similarity   38.6%;  Pred. No. 4.6e-90;
  Matches  231;  Conservative  113;  Mismatches  181;  Indels   74;  Gaps   14;

Qy     76 EDPQTECQQCQRRCRQQESGPRQQQYCQRRCK-EICEEEEEYNRQRDPQQQYEQCQKHCQ 134
          :||    : |:|||    | ::|| |:  || :  |:::: :|  |||::||:||: |
Db     35 DDPPKRYEDCRRRCEWDTRGQKEQQQCEESCKSQYGEKDQQRHRPEDPQRRYEECQQEC- 93

Qy    135 RRETEPRHMQTCQQRCERRYEKEKRKQQKRYEEQQREDEEKYEERMKEEDNKRDPQQREY 194
            |: | |    |||||            ||:|:||::                   ||::
Db     94 -RQQEERQRPQCQQRC-----------IKRFEQQQQQ-----------------SQRQF 123

Qy    195 EDCRRRCEQQE--PRQQHQCQLRCREQQRQHGRGGDMMNPQR------GGSGRYEEGEEE 246
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Db    124 QECQQHCHQQEQRPERKQQCVAECRERYQE--------NPWRREREEEAEEEETEEGEQE 175

Qy    247 QSDNPYYFDERSLSTRFRTEEGHISVLENFYGRSKLLRALKNYRLVLLEANPNAFVLPTH 306
          || ||:|  ||  :||| | |:  ||: |  |  :|| :  :|| :|||||  ||| |
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Qy    307 LDADAILLVIGGRGALKMIHHDNRESYNLECGDVIRIPAGTTFYLINRDNNERLHIAKFL 366
           ||: | ||  ||| |  : |:|:|||||:  | |:|:|||:| || |:|| |:| ||
Db    236 CDAEKIYLVTNGRGTLTFLTHENKESYNVVPGVVVRVPAGSTVYLANQDNKEKLIIAVLH 295

Qy    367 QTISTPGQYKEFFPAGGQNPEPYLSTFSKEILEAALNTQTEKLRGVFG-------QQREG 419
          : :: | |::|||||| | |: ||  ||:|||| | ||::|:|  :||       || :|
Db    296 RPVNNPRQFEEFFPAGSQRPQSYLRAFSREILEPAFNTRSEQLDELFGGRQSHRRQQGQG 355

Qy    420 VIIRASQEQIRELTRDDSESRHWHIRRGGESSRGPYNLFNKRPLYSNKYGQAYEVKPEDY 479
          :  :|||||| |::: :  |     : ||  |  :||  : | |||: |: ||  | ::
Db    356 MFRKASQEQIRALSQEATSPR----EKSGE--RFAFNLLYRTPRYSNQNGRFYEACPREF 409

Qy    480 RQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVVASGEADVEMACPHLSGRHGGRGGGK 539
          ||| |::::|    : |||:  | :|:::| ||:|  |   |||  ||| :       :
Db    410 RQLSDINVTVSALQLNQGSIFVPHYNSKATFVVLVNEGNGYVEMVSPHLPRQSSFEEEEE 469

Qy    540 RHEEEEDV------HYEQVRARLSKREAIVVLAGHPVVFVSSGNENLLLFAFG-----IN 588
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Db    470 QQQEQEQEEERRSGQYRKIRSQLSRGDIFVVPANFPVTFVASQNQNLRMTGFGLYNQNIN 529

Qy    589 AQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVEESFNSQDQSIFFPGPRQHQQQS 647
            :|   |:||:  :| :| : || ||||    : |:| ||:  |  :|   || |: |
Db    530 PDHNQRIFVAGKINHV-RQWDSQAKELAFGVSSRLVDEIFNNNPQESYFVS-RQRQRAS 586


RESULT   4
US-07-955-905A-24
; Sequence 24, Application US/07955905A
; Patent No. 5770433
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECOMBINANT 47 AND 31 kD COCOA PROTEINS AND
;    TITLE OF INVENTION:  PRECURSOR
;    NUMBER OF SEQUENCES:  28
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/955,905A
;      FILING DATE:  21-JAN-1993
;      CLASSIFICATION:  435
;  INFORMATION FOR SEQ ID NO:  24:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  605 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    ORIGINAL SOURCE:
;      ORGANISM:  Glycine max
;    FEATURE:
;      NAME/KEY:  Protein
;      LOCATION:  1..605
;      OTHER INFORMATION:  /note= "Vicilin from G. max"
US-07-955-905A-24


  Query Match             23.7%;  Score 838.5;  DB 1;  Length 605;
  Best Local Similarity   30.5%;  Pred. No. 2.2e-68;
  Matches  205;  Conservative  144;  Mismatches  223;  Indels  101;  Gaps   17;

Qy     11 LLFLLSLFLLSTTVS--LAESEFDRQEYEECKRQCMQLETSGQMRRCVSQCDKRFEEDID 68
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Db      8 LLLLGLVFLASVSVSFGIAYWEKENPKHNKCLQSCNSERDSYRNQACHARC--------N 59

Qy     69 WSKYDNQEDPQTECQQCQRRCRQQESGPRQQQYCQRRCKEICEEEEEYNRQRD---PQQQ 125
             | : :|  : |  : : | :  |  |:|           :||:|  : |    |: |
Db     60 LLKVEKEECEEGEIPRPRPRPQHPEREPQQPGE---------KEEDEDEQPRPIPFPRPQ 110

Qy    126 YEQCQKHCQRRETE-PRHMQTCQQRCERRYEKEKRKQQKRYEEQQREDEEKYEERMKEED 184
          | ::| || | | ||              ||::: :|  ||:  :::|: :||  :
Db    111 PRQEEEHEQREEQEWPR-------------KEEKRGEKGSEEEDEDEDEEQDER--QFP 154

Qy    185 NKRDPQQREYEDCRRRCEQQEPRQQHQCQLRCREQQRQHGRGGDMMNPQRGGSGRYEEGE 244
          | | |:|        |: |   : :      ||||:     |             |
Db    155 FPRPPHQKE--------ERNEEEDEDE------EQQRESEESED-----------SELR 188

Qy    245 EEQSDNPYYFDERSLSTRFRTEEGHISVLENFYGRSKLLRALKNYRLVLLEANPNAFVLP 304
          :: ||: |      | |: : | | ||: |  ||  |: |::||::   : ||  :||
Db    189 RHKNKNPFLFFSNRFETLFKNQYGRIRVLQRFNQRSPQLQNLRDYRILEFNSKPNTLLLP 248

Qy    305 THLDADAILLVIGGRGALKMIHHDNRESYNLECGDVIRIPAGTTFYLINRDNNERLHIAK 364
          | ||| :::: |   | ::::|:|:|| |: || :|:|:|||:|::| ||||  | :
Db    249 NHADADYLIVILNGTAILSLVNNDDRDSYRLQSGDALRVPSGTTYYVVNPDNNENLRLIT 308

Qy    365 FLQTISTPGQYKEFFPAGGQNPEPYLSTFSKEILEAALNTQTEKLRGVF---------GQ 415
             :: ||::: || :  :  : ||  ||: |||| :|: |::  |          |:
Db    309 LAIPVNKPGRFESFFLSSTEAQQSYLQGFSRNILEASYDTKFEEINKVLFSREEGQQQGE 368

Qy    416 QR--EGVIIRASQEQIRELTRDDSESRHWHIRRGGESSRGPYNLFNKRPLYSNKYGQAYE 473
          ||  | ||:  |:|||| |::    |     |:   |   |:|| :: |:|||| |: :|
Db    369 QRLQESVIVEISKEQIRALSKRAKSSS----RKTISSEDKPFNLRSRDPIYSNKLGKFFE 424

Qy    474 VKPEDYRQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVVASGEADVEMACPHLSGRHG 533
          : ||   ||:|:|: : | :: :|::: | ||:::  ::|:  |:|::|:
Db    425 ITPEKNPQLRDLDIFLSIVDMNEGALLLPHFNSKAIVILVINEGDANIELV--------- 475

Qy    534 GRGGGK-----RHEEEEDVHYEQVRARLSKREAIVVLAGHPVVFVSSGNENLLLFAFGIN 588
             | |     : :||: :   : || ||:::  |: ||:|||   :   || || |||
Db    476 ---GLKEQQQEQQQEEQPLEVRKYRAELSEQDIFVIPAGYPVVV--NATSNLNFFAIGIN 530

Qy    589 AQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVEESFNSQDQSIFFPGPRQHQQQSP 648
          |:||  ||||| : ||: ||  |  ||||    : ||:   :| :| |     : :::
Db    531 AENNQRNFLAGSQDNVISQIPSQVQELAFPGSAQAVEKLLKNQRESYFVDAQPKKKEEGN 590

Qy    649 RSTKQQQPLVSIL 661
          :  |   || |||
Db    591 KGRK--GPLSSIL 601


RESULT   5
US-07-955-905A-25
; Sequence 25, Application US/07955905A
; Patent No. 5770433
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECOMBINANT 47 AND 31 kD COCOA PROTEINS AND
;    TITLE OF INVENTION:  PRECURSOR
;    NUMBER OF SEQUENCES:  28
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/955,905A
;      FILING DATE:  21-JAN-1993
;      CLASSIFICATION:  435
;  INFORMATION FOR SEQ ID NO:  25:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  571 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    ORIGINAL SOURCE:
;      ORGANISM:  Pisum sativum
;    FEATURE:
;      NAME/KEY:  Protein
;      LOCATION:  1..571
```

```
;      OTHER INFORMATION:  /note= "Convicilin from P. sativum"
US-07-955-905A-25


  Query Match             23.2%;  Score 821.5;  DB 1;  Length 571;
  Best Local Similarity   31.0%;  Pred. No. 7.2e-67;
  Matches  211;  Conservative  112;  Mismatches  205;  Indels  153;  Gaps   19;

Qy      11 LLFLLSLFLLSTTVSLAESEFDRQEYEECKRQCMQLETSGQMRRCVSQCDKRFEEDIDW- 69
           |||| :|| |  |: |        |:|      :    ||  |   : :| :   :|
Db      12 LLFLGIIFLASVCVTYA-------NYDEGS----ETRVPGQRERGRQEGEKEEKRHGEWR 60

Qy      70 SKYDNQEDPQTECQQCQRRCRQQESGPRQQQYCQRRCKEICEEEEEYNRQRDPQQQYEQC 129
             |: :|                                  ||:::|  ||: ::|
Db      61 PSYEKEEHE-------------------------------EEKQKYRYQREKKEQ---- 84

Qy     130 QKHCQRRETEPRHMQTCQQRCERRYEKEKRKQQKRYEEQQREDEEKYEERMKEEDNKRDP 189
                :| :|           |:|:|             ||||: ||  :    : ||
Db      85 ------KEVQPG---------RERWERE------------EDEEQVEEEWRGSQRREDP 116

Qy     190 QQREYEDCRRRCEQQEPRQQHQCQLRCREQQRQHGRGGDMMNPQRGGSGRYEEGEEEQSD 249
           ::|                    :|| ||:: :  |       || |       | ::
Db     117 EER-----------------ARLRHREERTKRDR-----RHQREGEEEERSSESQEHR 152

Qy     250 NPYYFDERSLSTRFRTEEGHISVLENFYGRSKLLRALKNYRLVLLEANPNAFVLPTHLDA 309
           ||: |      | |  | |||  |: |  || |   |:|||||   | |:   || |:||
Db     153 NPFLFKSNKFLTLFENENGHIRRLQRFDKRSDLFENLQNYRLVEYRAKPHTIFLPQHIDA 212

Qy     310 DAILLVIGGRGALKMIHHDNRESYNLECGDVIRIPAGTTFYLINRDNNERLHIAKFLQTI 369
           | ||:|: |:  | ::  ::| ||||| || |:|||||| ||:|:|: | | :  |:  :
Db     213 DLILVVLNGKAILTVLSPNDRNSYNLERGDTIKIPAGTTSYLVNQDDEEDLRVVDFVIPV 272

Qy     370 STPGQYKEFFPAGGQNPEPYLSTFSKEILEAALNTQTEKLRGVF---------------- 413
           : ||::: |     :|   ||  |||| ||||:|||: | :  |
Db     273 NRPGKFEAF--GLSENKNQYLRGFSKNILEASLNTKYETIEKVLLEEQEKKPQQLRDRKR 330

Qy     414 ---GQQREGVIIRASQEQIRELTRDDSESRHWHIRRGGESSRGPYNLFNKRPLYSNKYGQ 470
              |::|:  ||: |:||| || :    |     ::   |   |:|| : :| ||||:|:
Db     331 TQQGEERD-AIIKVSREQIEELRKLAKSSS----KKSLPSEFEPFNLRSHKPEYSNKFGK 385

Qy     471 AYEVKPE-DYRQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVVASGEADVEMACPHLS 529
             :|: ||  | ||||:|: |    : :|::| | :|:|:  |::|  |: ::|:
Db     386 LFEITPEKKYPQLQDLDILVSCVEINKGALMLPHYNSRAIVVLLVNEGKGNLELL----- 440

Qy     530 GRHGGRGGGKRHEEEE-------DVHYEQVRARLSKREAIVVLAGHPVVFVSSGNENLLL 582
                 | ::|:::|       :   ::  |||  : ::: |||||   :| | |||
Db     441 --------GLKNEQQEREDRKERNNEVQRYEARLSPGDVVIIPAGHPVAISASSNLNLL- 491

Qy     583 FAFGINAQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVEESFNSQDQSIFFPG-PR 641
             |||||:||  |||:| : ||: |||    || |    :||     :| || |    |
Db     492 -GFGINAKNNQRNFLSGSDDNVISQIENPVKELTFPGSSQEVNRLIKNQKQSHFASAEPE 550

Qy     642 QHQQQSPRSTKQQQPLVSILD 662
           | :::| |   :: || |:||
Db     551 QKEEESQR---KRSPLSSVLD 568


RESULT   6
US-07-955-905A-26
; Sequence 26, Application US/07955905A
; Patent No. 5770433
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECOMBINANT 47 AND 31 kD COCOA PROTEINS AND
;    TITLE OF INVENTION:  PRECURSOR
;    NUMBER OF SEQUENCES:  28
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/955,905A
;      FILING DATE:  21-JAN-1993
;      CLASSIFICATION:  435
;  INFORMATION FOR SEQ ID NO:  26:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  410 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    ORIGINAL SOURCE:
;      ORGANISM:  Pisum sativum
;    FEATURE:
;      NAME/KEY:  Protein
;      LOCATION:  1..410
;      OTHER INFORMATION:  /note= "Vicilin from P. sativum"
US-07-955-905A-26


  Query Match             19.7%;  Score 699.5;  DB 1;  Length 410;
  Best Local Similarity   36.9%;  Pred. No. 6.4e-56;
  Matches  147;  Conservative   79;  Mismatches  143;  Indels   29;  Gaps    5;

Qy     249 DNPYYFDERSLSTRFRTEEGHISVLENFYGRSKLLRALKNYRLVLLEANPNAFVLPTHLD 308
           :||: |       | :  | ||| :|: |  |||:   |:||||:  :: |:   || : |
Db      20 ENPFIFKSNRFQTLYENENGHIRLLQKFDKRSKIFENLQNYRLLEYKSKPHTLFLPQYTD 79

Qy     309 ADAILLVIGGRGALKMIHHDNRESYNLECGDVIRIPAGTTFYLINRDNNERLHIAKFLQT 368
           || ||:|: |:  | ::  ::| |:||| || |::|||:  |  |||:||   :
Db      80 ADFILVVLSGKATLTVLKSNDRNSFNLERGDAIKLPAGSIAYFANRDDNEEPRVLDLAIP 139

Qy     369 ISTPGQYKEFFPAGGQNPEPYLSTFSKEILEAALNTQTEKLRGVFGQQR---------- 417
           :: ||| : |  :| || :  || ||| ||||| ||  |::  |  :|:
Db     140 VNKPGQLQSFLLSGTQNQKSSLSGFSKNILEAAFNTNYEEIEKVLLEQQEQEPQHRRSLK 199

Qy     418 --------EGVIIRASQEQIRELTRDDSESRHWHIRRGGESSRGPYNLFNKRPLYSNKYG 469
                   | ||:: |::|| ||::   |     ::   |  ||:|| :: |:|||||
Db     200 DRRQEINEENVIVKVSRDQIEELSKNAKSSS----KKSVSSESGPFNLRSRNPIYSNKFG 255

Qy     470 QAYEVKPEDYRQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVVASGEADVEMACPHLS 529
           : :|: ||  :||||:|: |   ::  ||:: | :|:|:  :| |  |: | |:
Db     256 KFFEITPEKNQQLQDLDIFVNSVDIKVGSLLLPNYNSRAIVIVTVTEGKGDFELVGQR-- 313

Qy     530 GRHGGRGGGKRHEEEEDV--HYEQVRARLSKREAIVVLAGHPVVFVSSGNENLLLFAFGI 587
             : |:   |  |::|:     :  ||:||  :  |: |||||   :| : ||:    ||
Db     314 NENQGKENDKEEEQEEETSKQVQLYRAKLSPGDVFVIPAGHPVAINASSDLNLI--GLGI 371

Qy     588 NAQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVE 625
           ||:||  ||||| | ||: |:|    ||||     ||:
Db     372 NAENNERNFLAGEEDNVISQVERPVKELAFPGSSHEVD 409


RESULT   7
US-07-955-905A-27
; Sequence 27, Application US/07955905A
; Patent No. 5770433
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECOMBINANT 47 AND 31 kD COCOA PROTEINS AND
;    TITLE OF INVENTION:  PRECURSOR
;    NUMBER OF SEQUENCES:  28
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/955,905A
;      FILING DATE:  21-JAN-1993
;      CLASSIFICATION:  435
;  INFORMATION FOR SEQ ID NO:  27:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  421 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
```

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;    MOLECULE TYPE:  protein
;    ORIGINAL SOURCE:
;      ORGANISM:  Phaseolus vulgaris
;    FEATURE:
;      NAME/KEY:  Protein
;      LOCATION:  1..421
;      OTHER INFORMATION:  /note= "Vicilin from P. vulgaris"
US-07-955-905A-27


  Query Match             15.3%;  Score 542;  DB 1;  Length 421;
  Best Local Similarity   33.1%;  Pred. No. 1.7e-41;
  Matches  141;  Conservative   71;  Mismatches  158;  Indels   56;  Gaps   13;

Qy     244 EEEQSDNPYYFD-ERSLSTRFRTEEGHISVLENFYGRSKLLRALKNYRLVLLEANPNAFV 302
           |||  |||:||: : | :| |: : ||| ||: |  :|| |: |::|||||   : |   :
Db      30 EEESQDNPFYFNSDNSWNTLFKNQYGHIRVLQRFDQQSKRLQNLEDYRLVEFRSKPETLL 89

Qy     303 LPTHLDADAILLVIGGRGALKMIHHDNRESY------NLECGDVIRIPAGTTFYLINRDN 356
           ||   ||: :|:|  |   | ::  |:|  |      |    |  :|||||  |||:| |
Db      90 LPQQADAELLLVVRSGSAILVLVKPDDRREYFFLTSDNPIFSDHQKIPAGTIFYLVNPDP 149

Qy     357 NERLHIAKFLQTISTPGQYKEFFPAGGQNPEPYLSTFSKEILEAALNTQTEKLRGVFGQ- 415
           | | | :    :: | |  ||| :  :  : ||  ||| ||||: |:: |::  |  :
Db     150 KEDLRIIQLAMPVNNP-QIHEFFLSSTEAQQSYLQEFSKHILEASFNSKFEEINRVLFEE 208

Qy     416 --QREGVIIRASQEQIRELTRDDSESRHWHIRRGGESSRGPYNLFNKRPLYSNKYGQAYE 473
             |:||||:    |||:||::        | :     |     |  :     |::|   |
Db     209 EGQQEGVIVNIDSEQIKELSK--------HAKSSSRKS-----LSKQDNTIGNEFGNLTE 255

Qy     474 VKPEDYRQLQDMDLSVFIANV--TQGSMMGPFFNTRSTKVVVVASGEADVEMACPHLSGR 531
                  |  |:| |:::   :|::  | : :::  ::||  ||| ||:  |
Db     256 --------RTDNSLNVLISSIEMEEGALFVPHYYSKAIVILVVNEGEAHVELVGPK---- 303

Qy     532 HGGRGGGKRHEEEEDVHYEQVRARLSKREAIVVLAGHPVVFVSSGNENLLLFAFGINAQN 591
               | |     | : ||  || ||| :  |: | :||   :: | |     |||||  |
Db     304 -----GNK-----ETLEYESYRAELSKDDVFVIPAAYPVAIKATSNVNFT--GFGINANN 351

Qy     592 NHENFLAGRERNVLQQI-----EPQAMELAFAAPRKEVEESFNSQDQSIFFPGPRQHQQQ 646
           |: | |||:  ||: |         : | |:    || :  | |  | :|     |||:
Db     352 NNRNLLAGKTDNVISSIGRALDGKDVLGLTFSGSGDEVMKLINKQSGS-YFVDAHHHQQE 410

Qy     647 SPRSTK 652
             :  |
Db     411 QQKGRK 416


RESULT   8
US-08-056-200-94
; Sequence 94, Application US/08056200
; Patent No. 5616500
;  GENERAL INFORMATION:
;    APPLICANT:  Steinert, Peter M.
;    APPLICANT:  Lee, Seung-Chul
;    APPLICANT:  Kim, In-Gyu
;    APPLICANT:  Chung, Soo-Il
;    APPLICANT:  Park, Sang-Chul
;    TITLE OF INVENTION:  Trichohyalin and Transglutaminase-3 and
;    TITLE OF INVENTION:  Mehods of Using Same
;    NUMBER OF SEQUENCES:  117
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Knobbe, Martens, Olson & Bear
;      STREET:  620 Newport Center Drive, Sixteenth Floor
;      CITY:  Newport Beach
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  92660
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/056,200
;      FILING DATE:  30-APR-1993
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fedrick, Michael F.
;      REGISTRATION NUMBER:  36,799
;      REFERENCE/DOCKET NUMBER:  NIH054.001A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (714) 760-0404
;      TELEFAX:  (714) 760-9502
;  INFORMATION FOR SEQ ID NO:  94:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  1898 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-056-200-94


  Query Match             6.1%;  Score 216.5;  DB 1;  Length 1898;
  Best Local Similarity   20.8%;  Pred. No. 1.1e-10;
  Matches  154;  Conservative  110;  Mismatches  289;  Indels  189;  Gaps   30;

Qy      28 ESEFDRQEYEECK--------------RQCMQLETSG-----QMRRCVSQCDKRF--EE 65
           |   : :: : ||                |: ::|   |     | ||   : |: |  ||
Db     185 ERRAEEEQLQSCKGHETEEFPDEEQLRRRELLELRRKGREEKQQQRR--ERQDRVFQEEE 242

Qy      66 DIDWSKYD----------NQEDPQTECQ------------QCQRRCRQQESGP-----R 97
           : :| | :           :|:|| : :             |  || ||:|        |
Db     243 EKEWRKRETVLRKEEEKLQEEEPQRQRELQEEEEQLRKLERQELRRERQEEEQQQQRLRR 302

Qy      98 QQQYCQRRCKEICEEEEEYNRQRDPQQQYEQCQKHCQRRETEPRHMQTC---------QQ 148
           :||  ::: :|  |::||   |:: ::| |: ::   ||| | |  |           :|
Db     303 EQQLRRKQEEERREQQEERREQQERREQQEERREQQLRREQEERREQQLRREQEEERREQ 362

Qy     149 RCERRYEKEKRKQQKR--YEEQQREDEEKYEERMKEEDN-KRDPQQREYEDCRR----RC 201
           :  |  |:|:|:|| |   ||::|| : : |:::: |   :|: | |  :  ||    |
Db     363 QLRREQEEERREQQLRREQEEERREQQLRREQQLRREQQLRREQQLRREQQLRREQQLRR 422

Qy     202 EQQEPRQQ---HQCQLRCREQQ---RQHGRGGDMMNPQRGGSGRYEEGEEEQSD------ 249
           ||| |:|    : ||| ||||     |      :  : |      | :  :||: |
Db     423 EQQLRREQQLRREQQLR-REQQLRREQEEERHEQKHEQERREQRLKREQEERRDWLKREE 481

Qy     250 -NPYYFDERSLSTRFRTEEGHIS----VLENFYGRSKLLRALKNYRLVLLEANPNAFVLP 304
            :  ||      | :|          ||    | :  |  :  |    |
Db     482 ETERHEQERRKQQLKRDQEEERRERWLKLEEEERREQQERREQQLRREQEERREQ----- 536

Qy     305 THLDADAILLVIGGRGALKMIHHDNRESYNLECGDVIRIPAGTTF-YLINRDNNERLHIA 363
                         ||    : |    |     :|         |: |:  :||
Db     537 ----------------RLKRQEEEERLQQRLRSEQQLRREQEERLEQLLKREEEKRLEQE 580

Qy     364 KFLQTISTPGQYK--EFFPAGGQNPEPYLSTFSKEILEAAL-NTQTEKL---------- 409
           :  | :    : :  :      :  :  |    :| ||  |   : |:|
Db     581 RREQRLKREQEERRDQLLKREEERRQQRLKREQEERLEQRLKREEVERLEQEERRDERLK 640

Qy     410 RGVFGQQREGVIIRASQEQIR---ELTRDDSESRHWHIRRGGESSRGPYNLFNKRPLYSN 466
           |    ::|   :::: ::: |   :| |:  | |   ::|  |  |    | ||
Db     641 REEPEEERRHELLKSEEQEERRHEQLRREQQERREQRLKREEEEERLEQRL--KREHEEE 698

Qy     467 KYGQAYEVKPEDYRQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVVASGEADVEMACP 526
           :  | |:  |:  | ::                    :|  |       |||   :
Db     699 RREQ--ELAEEEQEQARER-----------------IKSRIPKWQWQLESEADARQSKV 738

Qy     527 HLSGRHGGRGGG------KRHEEEEDVHYEQVRARLSKREAIVVLAGHPVVFVSSGNENL 580
           |     ||          ||  | |    |: ||   ::|                |
Db     739 LLEAPQAGRAEAPQEQEEKRRRESELQWQEEERAHRQQQE---------------EEQR 782

Qy     581 LLFAFGINAQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVEE-----SFNSQDQSI 635
             | :   |:   |    ||:|           |:   | :|  |       | :
Db     783 RDFTWQWQAEEKSER---GRQR-----------LSARPPLREQREREQLRAEERQQREQR 827

Qy     636 FFPGPRQHQQQSPRSTKQQQPL 657
           | |   : :|:  :  :::: |
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```
Db    828 FLPEEEEKEQRGRQRREREKEL 849


RESULT   9
US-08-800-644-94
; Sequence 94, Application US/08800644
; Patent No. 5958752
;  GENERAL INFORMATION:
;    APPLICANT:  Steinert, Peter M.
;    APPLICANT:  Lee, Seung-Chul
;    APPLICANT:  Kim, In-Gyu
;    APPLICANT:  Chung, Soo-Il
;    APPLICANT:  Park, Sang-Chul
;    TITLE OF INVENTION:  Trichohyalin and Transglutaminase-3 and
;    TITLE OF INVENTION:  Mehods of Using Same
;    NUMBER OF SEQUENCES:  117
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Knobbe, Martens, Olson & Bear
;      STREET:  620 Newport Center Drive, Sixteenth Floor
;      CITY:  Newport Beach
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  92660
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/800,644
;      FILING DATE:  14-FEB-1997
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/056,200
;      FILING DATE:  30-APR-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fedrick, Michael F.
;      REGISTRATION NUMBER:  36,799
;      REFERENCE/DOCKET NUMBER:  NIH054.001A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (714) 760-0404
;      TELEFAX:  (714) 760-9502
;  INFORMATION FOR SEQ ID NO:  94:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  1898 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-800-644-94


  Query Match             6.1%;  Score 216.5;  DB 2;  Length 1898;
  Best Local Similarity   20.8%;  Pred. No. 1.1e-10;
  Matches  154;  Conservative  110;  Mismatches  289;  Indels  189;  Gaps   30;

Qy      28 ESEFDRQEYEECK--------------RQCMQLETSG-----QMRRCVSQCDKRF--EE 65
           |   : :: : ||               |: ::|   |     | ||   : |: |  ||
Db     185 ERRAEEEQLQSCKGHETEEFPDEEQLRRRELLELRRKGREEKQQQRR--ERQDRVFQEEE 242

Qy      66 DIDWSKYD----------NQEDPQTECQ-------------QCQRRCRQQESGP-----R 97
           : :| | :           :|:|| : :              |  || ||:|        |
Db     243 EKEWRKRETVLRKEEEKLQEEEPQRQRELQEEEEQLRKLERQELRRERQEEEQQQQRLRR 302

Qy      98 QQQYCQRRCKEICEEEEEYNRQRDPQQQYEQCQKHCQRRETEPRHMQTC---------QQ 148
           :||  ::: :|  |::||   |:: ::| |: ::   ||| | |  |           :|
Db     303 EQQLRRKQEEERREQQEERREQQERREQQEERREQQLRREQEERREQQLRREQEEERREQ 362

Qy     149 RCERRYEKEKRKQQKR--YEEQQREDEEKYEERMKEEDN-KRDPQQREYEDCRR----RC 201
           :  |  |:|:|:|| |   ||::||  : : |:::: |   :|: | |  :  ||    |
Db     363 QLRREQEEERREQQLRREQEEERREQQLRREQQLRREQQLRREQQLRREQQLRREQQLRR 422

Qy     202 EQQEPRQQ---HQCQLRCREQQ---RQHGRGGDMMNPQRGGSGRYEEGEEEQSD------ 249
           |||  |:|    : ||| ||||    |     :  : |     | :  :||: |

Db     423 EQQLRREQQLRREQQLR-REQQLRREQEEERHEQKHEQERREQRLKREQEERRDWLKREE 481

Qy     250 -NPYYFDERSLSTRFRTEEGHIS----VLENFYGRSKLLRALKNYRLVLLEANPNAFVLP 304
            :  ||      | :|          ||    | :  |  :  |    |
Db     482 ETERHEQERRKQQLKRDQEEERRERWLKLEEEERREQQERREQQLRREQEERREQ----- 536

Qy     305 THLDADAILLVIGGRGALKMIHHDNRESYNLECGDVIRIPAGTTF-YLINRDNNERLHIA 363
                          ||    : |    |     :|          |: |:  :||
Db     537 ----------------RLKRQEEEERLQQRLRSEQQLRREQEERLEQLLKREEEKRLEQE 580

Qy     364 KFLQTISTPGQYK--EFFPAGGQNPEPYLSTFSKEILEAAL-NTQTEKL---------- 409
           :  | :    : :  :      :  :  |    :| ||  |   : |:|
Db     581 RREQRLKREQEERRDQLLKREEERRQQRLKREQEERLEQRLKREEVERLEQEERRDERLK 640

Qy     410 RGVFGQQREGVIIRASQEQIR---ELTRDDSESRHWHIRRGGESSRGPYNLFNKRPLYSN 466
           |    ::|   :::: ::: |   :| |:  | |   ::|  |  |    |  ||
Db     641 REEPEEERRHELLKSEEQEERRHEQLRREQQERREQRLKREEEEERLEQRL--KREHEEE 698

Qy     467 KYGQAYEVKPEDYRQLQDMDLSVFIANVTQGSMMGPFFNTRSTKVVVVASGEADVEMACP 526
           :  |  |:  |:  | ::                  :|  |      |||   :
Db     699 RREQ--ELAEEEQEQARER-----------------IKSRIPKWQWQLESEADARQSKV 738

Qy     527 HLSGRHGGRGGG------KRHEEEEDVHYEQVRARLSKREAIVVLAGHPVVFVSSGNENL 580
            |     ||          ||  | |    |: ||   ::|                |
Db     739 LLEAPQAGRAEAPQEQEEKRRRESELQWQEEERAHRQQQE---------------EEQR 782

Qy     581 LLFAFGINAQNNHENFLAGRERNVLQQIEPQAMELAFAAPRKEVEE-----SFNSQDQSI 635
           | :   |:   |    ||:|            |:   | :|  |         | :
Db     783 RDFTWQWQAEEKSER---GRQR-----------LSARPPLREQRERQLRAEERQQREQR 827

Qy     636 FFPGPRQHQQQSPRSTKQQQPL 657
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Db     828 FLPEEEEKEQRGRQRREREKEL 849


RESULT  10
US-08-728-323A-2
; Sequence 2, Application US/08728323A
; Patent No. 5948676
;  GENERAL INFORMATION:
;    APPLICANT:  Chang, Yuan
;    APPLICANT:  Bohenzky, Roy A.
;    APPLICANT:  Russo, James J.
;    APPLICANT:  Edelman, Isidore S.
;    APPLICANT:  Moore, Patrick S.
;    TITLE OF INVENTION:  Immediate Early Protein From Kaposi's
;    TITLE OF INVENTION:  Sarcoma-Associated Herpesvirus, DNA
;    TITLE OF INVENTION:  Encoding Same And Uses Thereof
;    NUMBER OF SEQUENCES:  21
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Cooper & Dunham LLP
;      STREET:  1185 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/728,323A
;      FILING DATE:
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  White, John P.
;      REGISTRATION NUMBER:  28,678
;      REFERENCE/DOCKET NUMBER:  0575/52268/JPW/MSC/SKS
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  212-278-0400
;      TELEFAX:  212-391-0525
;  INFORMATION FOR SEQ ID NO:  2:
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;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 1162 amino acids
;      TYPE: amino acid
;      TOPOLOGY: linear
;    MOLECULE TYPE: protein
US-08-728-323A-2


  Query Match             6.0%;  Score 211.5;  DB 2;  Length 1162;
  Best Local Similarity   25.4%;  Pred. No. 1.5e-10;
  Matches   60;  Conservative   61;  Mismatches   94;  Indels   21;  Gaps    5;

Qy      34 QEYEECKRQCMQLETSGQMRRCVSQCDKRFEEDIDWSKYDNQEDPQTECQQCQRRCRQQE 93
           |: |  :|:  | |   |  :   | |:: :::    :    |  | | || ::: :|:
Db     580 QQREPQQREPQQREPQQQDEQ---QQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQ 636

Qy      94 SGPRQQQYCQRRCKEICEEEEEYNRQRDPQQQYEQCQKHCQRRE-TEPRHMQTCQQRCER 152
             :||   |:      :|:::  :|:| ||| || |   |: |  :    |  ||: |:
Db     637 QDEQQQDEQQQ------DEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQ 690

Qy     153 RYEKEKRKQQKRYEEQQREDE-EKYEERMKEEDNKRDPQQREYEDCRRRCEQQEPRQQHQ 211
           : ::::: :|:: :||:::|| |: :|: ::|  ::| ||:: |  ::  :||:  || |
Db     691 QQDEQQQDEQEQQDEQEQQDEQEQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQQ 750

Qy     212 CQLRCREQQRQHGRGGDMMNPQRGGSGRYEEGEEEQSDNPYYFDERSLSTRFRTEE 267
             :  :|:| |          |       || |:|  |     :|:      : :|
Db     751 DEQEQQEEQEQ----------QEEQEQELEEQEQELEDQEQELEEQEQELEEQEQE 796


RESULT  11
US-08-918-914-4
; Sequence 4, Application US/08918914
; Patent No. 5876963
;  GENERAL INFORMATION:
;    APPLICANT:  Mitchell, Peter
;    APPLICANT:  Hutchinson, Nancy
;    APPLICANT:  Lawton, Michael
;    APPLICANT:  Magna, Holly
;    APPLICANT:  Yocum, Sue
;    APPLICANT:  Murry, Lynn E.
;    TITLE OF INVENTION:  HUMAN NUCLEOTIDE PYROPHOSPHORYLASE
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Dr.
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/918,914
;      FILING DATE:  Filed Herewith
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0369
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  788 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  GenBank
;      CLONE:  1070094
US-08-918-914-4


  Query Match             4.1%;  Score 144;  DB 2;  Length 788;
  Best Local Similarity   23.9%;  Pred. No. 0.00012;
  Matches   62;  Conservative   43;  Mismatches   96;  Indels   58;  Gaps   10;

Qy      53 RRCVSQCDKRFEEDIDWSKYD--NQEDPQTECQQCQ-----------RRCRQQESGPRQ 98
           |:   | |:  |   ||: :   :    :   | |:           |   |:   |
Db     148 RKKRQQGDEAVEGVGDWTDWSHCSSNGHEVRSQACEYGRKIQRRGCPARSAPQRVPAPPA 207

Qy      99 QQYCQRRCKEICEEEEEYNRQRDPQQQYEQCQKHCQRRETEPRHMQTCQQRCERRYEKEK 158
           |||  |          ||   :  ||| || |:  | || : |  |  ||: ::: ::::
Db     208 QQYAPR--------APEYPSAQQQQQQREQQQREQQHREHQARLQQHQQQQQQQQQQQQQ 259

Qy     159 RKQQKRYEEQ----QREDE---------EKYEERMKEEDNKRDPQQREYEDCRRRCEQQE 205
           |  | : : |    ||  :         | : :| :|:  ::  ||:: :  |::  ||:
Db     260 RPPQPQPQPQPQPPQRPPQQPQSFSGTHELHLQRQREQQQQQQQQQQQQQQ-RQQNPQQQ 318

Qy     206 PRQ-----QHQCQLRCREQQRQHGRGGDMMNPQRGGSGRYEEGEEEQSDNPYYFDERSLS 260
           |:|     | | ||       | |    :||:   :  | |   |     :: :|
Db     319 PQQTTQFGQSQIQL-------QSGPVPPQQHPQQQQPQQQPELERSPLDQHAQLYQQRMS 371

Qy     261 TRFRTEEGHISVLENFYGR 279
            ::|         |||  |
Db     372 -QYR---------ENFNQR 380


RESULT  12
US-08-109-391A-2
; Sequence 2, Application US/08109391A
; Patent No. 5639876
;  GENERAL INFORMATION:
;    APPLICANT:  Tripp, Cynthia A.
;    APPLICANT:  Frank, Glenn R.
;    APPLICANT:  Grieve, Robert B.
;    TITLE OF INVENTION:  NUCLEIC ACID MOLECULES ENCODING NOVEL
;    TITLE OF INVENTION:  PARASITIC HELMINTH PROTEINS
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Sheridan Ross & McIntosh
;      STREET:  1700 Lincoln St., Suite 3500
;      CITY:  Denver
;      STATE:  CO
;      COUNTRY:  U.S.A.
;      ZIP:  80203
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/109,391A
;      FILING DATE:  19-AUG-1993
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Connell, Gary J.
;      REGISTRATION NUMBER:  32,020
;      REFERENCE/DOCKET NUMBER:  2618-13
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  303/863-9700
;      TELEFAX:  303/863-0223
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  303 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-109-391A-2
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  Query Match             4.0%;  Score 143;  DB 1;  Length 303;
  Best Local Similarity   24.6%;  Pred. No. 3.6e-05;
  Matches   52;  Conservative   46;  Mismatches   87;  Indels   26;  Gaps   10;

Qy      32 DRQEYEECKRQ---CMQLETS---GQMRRC--VSQCDKRFEE-----DIDWSKYDNQEDP 78
           | :: :|| |   |  | |  :    :: | : |    :|     |   :  :  |
Db      97 DDEDLDECSDQEFRCPYLAKTLCVHYLKICDGIDDCGDGSDEMNCADDEVITSINGNESI 156

Qy      79 QTECQQCQRRCRQQESGP--RQQQYCQRR--CKEICEEEE-EYNRQRDPQQQYEQCQKHC 133
             |   | ||   |:|    |   | |:  | :  :|   ||  |   | :    | :
Db     157 NIRCDPDQFRC---ENGKCIAQIDRCNRKYDCDDGTDETTCEYFVQALQQARGVTVQDNA 213

Qy     134 QRRETEPRHMQTCQQRCER-RYEKEKRKQQKRYEEQQREDEEKYEERMKEEDNKRDPQQR 192
           | :  | :  : :|: :: : :||:| |::  :|: || ||: :|::::|: :   :|
Db     214 IRDDEIPNYTVSMEQKYDQVKEDKERRMQEEEEQERLREYEEQIQEKLRQEEERERQEQE 273

Qy     193 EYEDCRRRCEQQEPRQQHQCQLRCREQQRQH 223
             :  | | ||:  ||::      :|:|||:
Db     274 RRQKERERMEQERIRQEYD----EKERQRQY 300


RESULT  13
US-08-459-019A-2
; Sequence 2, Application US/08459019A
; Patent No. 5686080
;  GENERAL INFORMATION:
;    APPLICANT:  Tripp, Cynthia A.
;    APPLICANT:  Frank, Glenn R.
;    APPLICANT:  Grieve, Robert B.
;    TITLE OF INVENTION:  NOVEL PARASITIC HELMINTH P4 PROTEINS
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Sheridan Ross & McIntosh
;      STREET:  1700 Lincoln Street, #3500
;      CITY:  Denver
;      STATE:  CO
;      COUNTRY:  U.S.A.
;      ZIP:  80203
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/459,019A
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Connell, Gary J.
;      REGISTRATION NUMBER:  33,020
;      REFERENCE/DOCKET NUMBER:  2618-13-1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 863-9700
;      TELEFAX:  (303) 863-0223
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  303 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-459-019A-2


  Query Match             4.0%;  Score 143;  DB 1;  Length 303;
  Best Local Similarity   24.6%;  Pred. No. 3.6e-05;
  Matches   52;  Conservative   46;  Mismatches   87;  Indels   26;  Gaps   10;

Qy      32 DRQEYEECKRQ---CMQLETS---GQMRRC--VSQCDKRFEE-----DIDWSKYDNQEDP 78
           | :: :|| |   |  | |  :    :: | : |    :|     |   :  :  |
Db      97 DDEDLDECSDQEFRCPYLAKTLCVHYLKICDGIDDCGDGSDEMNCADDEVITSINGNESI 156

Qy      79 QTECQQCQRRCRQQESGP--RQQQYCQRR--CKEICEEEE-EYNRQRDPQQQYEQCQKHC 133
             |   | ||   |:|    |   | |:  | :  :|   ||  |   | :    | :
Db     157 NIRCDPDQFRC---ENGKCIAQIDRCNRKYDCDDGTDETTCEYFVQALQQARGVTVQDNA 213

Qy     134 QRRETEPRHMQTCQQRCER-RYEKEKRKQQKRYEEQQREDEEKYEERMKEEDNKRDPQQR 192
           | :  | :  : :|: :: : :||:| |::  :|: || ||: :|::::|: :   :|
Db     214 IRDDEIPNYTVSMEQKYDQVKEDKERRMQEEEEQERLREYEEQIQEKLRQEEERERQEQE 273

Qy     193 EYEDCRRRCEQQEPRQQHQCQLRCREQQRQH 223
             :  | | ||:  ||::      :|:|||:
Db     274 RRQKERERMEQERIRQEYD----EKERQRQY 300


RESULT  14
US-08-460-428A-2
; Sequence 2, Application US/08460428A
; Patent No. 5912337
;  GENERAL INFORMATION:
;    APPLICANT:  Tripp, Cynthia A.
;    APPLICANT:  Frank, Glenn R.
;    APPLICANT:  Grieve, Robert B.
;    TITLE OF INVENTION:  NOVEL PARASITIC HELMINTH
;    TITLE OF INVENTION:  P22U PROTEINS
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Sheridan Ross P.C.
;      STREET:  1700 Lincoln St., Suite 3500
;      CITY:  Denver
;      STATE:  CO
;      COUNTRY:  U.S.A.
;      ZIP:  80203
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/460,428A
;      FILING DATE:  02-JUN-1995
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Connell, Gary J.
;      REGISTRATION NUMBER:  32,020
;      REFERENCE/DOCKET NUMBER:  2618-13-3
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  303/863-9700
;      TELEFAX:  303/863-0223
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  303 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-460-428A-2


  Query Match             4.0%;  Score 143;  DB 2;  Length 303;
  Best Local Similarity   24.6%;  Pred. No. 3.6e-05;
  Matches   52;  Conservative   46;  Mismatches   87;  Indels   26;  Gaps   10;

Qy      32 DRQEYEECKRQ---CMQLETS---GQMRRC--VSQCDKRFEE-----DIDWSKYDNQEDP 78
           | :: :|| |   |  | |  :    :: | : |    :|     |   :  :  |
Db      97 DDEDLDECSDQEFRCPYLAKTLCVHYLKICDGIDDCGDGSDEMNCADDEVITSINGNESI 156

Qy      79 QTECQQCQRRCRQQESGP--RQQQYCQRR--CKEICEEEE-EYNRQRDPQQQYEQCQKHC 133
             |   | ||   |:|    |   | |:  | :  :|   ||  |   | :    | :
Db     157 NIRCDPDQFRC---ENGKCIAQIDRCNRKYDCDDGTDETTCEYFVQALQQARGVTVQDNA 213

Qy     134 QRRETEPRHMQTCQQRCER-RYEKEKRKQQKRYEEQQREDEEKYEERMKEEDNKRDPQQR 192
           | :  | :  : :|: :: : :||:| |::  :|: || ||: :|::::|: :   :|
Db     214 IRDDEIPNYTVSMEQKYDQVKEDKERRMQEEEEQERLREYEEQIQEKLRQEEERERQEQE 273

Qy     193 EYEDCRRRCEQQEPRQQHQCQLRCREQQRQH 223
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          :  | | ||:  ||::      :|:|||:
Db    274 RRQKERERMEQERIRQEYD----EKERQRQY 300


RESULT  15
US-08-458-860A-2
; Sequence 2, Application US/08458860A
; Patent No. 6100390
;  GENERAL INFORMATION:
;    APPLICANT:  Frank, Glenn R.
;    APPLICANT:  Tripp, Cynthia A.
;    APPLICANT:  Grieve, Robert B.
;    TITLE OF INVENTION:  NOVEL PARASITIC HELMINTH
;    TITLE OF INVENTION:  P22U NUCLEIC ACID MOLECULES
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Sheridan Ross P.C.
;      STREET:  1700 Lincoln St., Suite 3500
;      CITY:  Denver
;      STATE:  CO
;      COUNTRY:  U.S.A.
;      ZIP:  80203
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/458,860A
;      FILING DATE:  02-JUN-1995
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Connell, Gary J.
;      REGISTRATION NUMBER:  32,020
;      REFERENCE/DOCKET NUMBER:  2618-13-2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  303/863-9700
;      TELEFAX:  303/863-0223
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  303 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-458-860A-2


  Query Match             4.0%;  Score 143;  DB 3;  Length 303;
  Best Local Similarity   24.6%;  Pred. No. 3.6e-05;
  Matches   52;  Conservative   46;  Mismatches   87;  Indels   26;  Gaps   10;

Qy      32 DRQEYEECKRQ---CMQLETS---GQMRRC--VSQCDKRFEE-----DIDWSKYDNQEDP 78
           | :: :||  |   |  |  :     :: |  :  |    :|     |   :  :  |
Db      97 DDEDLDECSDQEFRCPYLAKTLCVHYLKICDGIDDCGDGSDEMNCADDEVITSINGNESI 156

Qy      79 QTECQQCQRRCRQQESGP--RQQQYCQRR--CKEICEEEE-EYNRQRDPQQQYEQCQKHC 133
             |   | ||   |:|    |   | |:  | :  :|   ||  |   | :    | :
Db     157 NIRCDPDQFRC---ENGKCIAQIDRCNRKYDCDDGTDETTCEYFVQALQQARGVTVQDNA 213

Qy     134 QRRETEPRHMQTCQQRCER-RYEKEKRKQQKRYEEQQREDEEKYEERMKEEDNKRDPQQR 192
           | :  | :  : :|: :: : :||:| |::  :|: || ||: :|::::|: :   :|
Db     214 IRDDEIPNYTVSMEQKYDQVKEDKERRMQEEEEQERLREYEEQIQEKLRQEEERERQEQE 273

Qy     193 EYEDCRRRCEQQEPRQQHQCQLRCREQQRQH 223
           :  | | ||:  ||::      :|:|||:
Db     274 RRQKERERMEQERIRQEYD----EKERQRQY 300


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Job time: 367 sec
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